

AMENDMENTS TO THE CLAIMS:

Please amend the claims and add new claims to read as follows:

SAC
1-26 (canceled).

B2
27 (currently amended): An integrated circuit comprising: a gate array architecture; said gate array architecture including a semiconductor substrate having a plurality of N-type diffusion regions and P-type diffusion regions; said diffusion regions having partially overlying polysilicon landing sites, at least one forming both N-type and P-type transistors; wherein the regions are relatively-sized to form two distinct transistor sizes, smaller N- and P-type transistors and larger N- and P- type transistors; the relatively sized P-type diffusions diffusion regions being substantially adjacent; successive rows of small diffusion regions are followed by successive rows of regular-sized diffusion regions; and immediately successive rows within similarly-sized diffusion regions have opposite polarity; and wherein said transistors are formed in said gate array architecture so that an interconnect disposed thereon is capable of connecting said smaller transistors to form internal clock buffers.

28 (original): The integrated circuit of claim 27, wherein the ratio between the two distinct transistor sizes is on the order of one-third.

29 (original): The integrated circuit of claim 28, wherein the ratio between the capacitance of the larger and smaller relatively-sized transistors is on the order of one-third.

Attorney Docket: 042390.P6643c

30 (currently amended): The integrated circuit of claim 27, wherein said partially overlying polysilicon landings landing sites for the smaller and larger transistors are not connected.

31 (currently amended): The integrated circuit of claim 30, and further comprising an interconnect overlying said gate array architecture;

the interconnect being adapted to connect the transistors of the gate array architecture to form a flip-flop having internal clock buffers.

32 (original): The integrated circuit of claim 31, wherein the interconnect is further adapted to connect the transistors of the gate array architecture so that the internal clock buffers of the flip-flop are formed from the smaller transistors.

B2
33 (original): The integrated circuit of claim 32, wherein said gate array-architecture is repeated in said integrated circuit.

34 (original): The integrated circuit of claim 32, wherein said integrated circuit is incorporated in a communications device.

35 (original): The integrated circuit of claim 32, wherein said integrated circuit is attached to a motherboard.

36 (original): The integrated circuit of claim 35, wherein said integrated circuit is incorporated in a personal computer.

Attorney Docket: 042390.P6643c

37 (original): The integrated circuit of claim 36, wherein said personal computer comprises one of a laptop and a desktop computer.

38 (currently amended): An article comprising: a storage medium, said storage medium having instructions stored thereon, said instructions, when executed, resulting in the capability to design the layout of an integrated circuit chip for fabrication, the integrated circuit chip including a gate array architecture, the gate array architecture comprising a plurality of N-type diffusion regions and P-type diffusion regions; said diffusion regions having partially overlying polysilicon landing sites, at least one forming both N-type and P-type transistors;

wherein the transistors are relatively-sized to form two distinct transistor sizes, smaller N- and P-type transistors and larger N- and P-type transistors;

the relatively-sized P-type diffusion regions being substantially adjacent;

successive rows of small diffusion regions are followed by successive rows of regular-sized diffusion regions; and

B2
immediately successive rows within similarly-sized diffusion regions have opposite polarity; and

wherein said transistors are formed in said gate array architecture so that an interconnect disposed thereon is capable of connecting said smaller transistors to form internal clock buffers.

39 (original): The article of claim 38, wherein said instructions, when executed, result in the capability to design the layout of the gate array architecture, wherein the ratio between the two distinct transistor sizes is on the order of one-third.

40 (currently amended): The article of claim 39 38, wherein said instructions, when executed, result in the capability to design the layout of the gate array architecture, wherein said partially

Attorney Docket: 042390.P6643c

overlying polysilicon landings landing sites for the smaller and larger transistors are not connected.

41 (currently amended): The article of claim 40, wherein said instructions, when executed, result in the capability to design the layout of a metallization interconnect an interconnect overlying said gate array architecture.

42 (currently amended): The article of claim 41, wherein said instructions, when executed, result in the capability to design the layout of a metallization interconnect an interconnect overlying said gate array architecture, wherein said metallization interconnect couples the transistors of the gate array architecture to form a flip-flop having internal clock buffers.

B2

43 (currently amended): The article of claim 42, wherein said instructions, when executed, result in the capability to design the layout of a metallization interconnect an interconnect overlying said gate array architecture that connects the transistors of the gate array architecture so that the internal clock buffers of the flip-flop are formed from the smaller transistors.

44 (new): The integrated circuit of claim 32, wherein most of said smaller transistors are used for internal clock buffers.

45 (new): The integrated circuit of claim 32, wherein substantially all of said smaller transistors are used for internal clock buffers.

46 (new): The article of claim 43, wherein said instructions, when executed, result in the capability to design the layout of an interconnect overlying said gate array architecture so that most of said smaller transistors are used for internal clock buffers.

Attorney Docket: 042390.P6643c

47 (new): The article of claim 43, wherein said instructions, when executed, result in the capability
to design the layout of an interconnect overlying said gate array architecture so that
substantially all of said smaller transistors are used for internal clock buffers.

B2

cont.